

## **SURGICAL MANAGEMENT OF DYSTOCIA DUE TO NARROW PELVIS IN A NON – DESCRIPT BUFFALO**

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**Abstract:** A full term primiparous non – descript buffalo was presented with dystocia. It had a history of a train accident that injured pelvis in its early pregnancy. Per vaginal examination revealed narrowed birth canal consequent to mal union of fracture of os coxae confirmed it as dystocia due to narrowed pelvis. A right paramedian laparo hysterotomy was performed and retrieved a dead female calf. With good post operative care and management the animal recovered well. But, in view of the future reproductive performance and as caesarean is the only way out to relieve calf the owner was advised to cull or not to breed the animal.

**Keywords:** ND Buffalo, maternal causes of dystocia, narrowed pelvis, caesarean.

### **Introduction**

Dystocia is difficulty in giving birth (Roberts, 2004). Incidence of dystocia was found to be high in heifers and among dystocias due to maternal causes, pelvic deformities account for 1-2 % (Jainuddin, 1986) viz., small sized pelvis, pelvic fractures, osteomalacea and hypoplasia of vagina and vulva (Purohit *et al.*, 2011). Dystocia due to fracture of pelvis was not a common cause according to Roberts (2004). In another study Sharma *et al.* (1992) reported 9.2 % of total dystocias of maternal origin were due to narrow pelvis. In such dystocias, parturition may not proceed over first stage, as the chances of calf being struck in the pelvic inlet are more. Surgical intervention is the only way to opt for delivering the calf, as forced traction may endanger life of both dam and calf (Samantha, 2011). A case of dystocia due to narrowed pelvis in a non – descript buffalo and its successful surgical management is presented in this report.

### **Case history and Clinical observations:**

A primiparous non – descript buffalo weighing about 300 kg and aged about 5 years was presented to college clinics with difficulty in delivering calf even after 8 hours of passing first stage of parturition. Anamnesis also revealed that the heifer met with a train accident

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leading to pelvic fracture on left side when it was 4 months pregnant which eventually healed in due course of time.

The animal was very dull, dehydrated and poor in condition. The uterine contractions were optimal but futile in accomplishing parturition. The left side of hip region from os coxae to tuber coxae was depressed inwards and downwards and the greater trochanter could not be palpated (Fig 1). Both the fore limbs of the calf were out through vagina which was inflamed (Fig 2). Per vaginal examination revealed dead calf with left laterally deviated head with neck struck in the birth canal. On left lateral aspect, mal – united fractured edges of os coxae could be palpated projecting inwards and obstructing eutocia. All the physiological parameters were within normal range and haemoglobin was 9 g/ dl. As it was impossible for normal delivery, emergency caesarean section was performed.

### **Treatment and Discussion**

The animal was administered with 3 liters 5% DNS and 8ml dexamethasone I/V. Right paramedian site was prepared aseptically. Sedation and local analgesia were achieved with xylaxine hydrochloride @ 0.01mg/kg BW and linear infiltration of 2% lignocaine hydrochloride respectively. By routine incisions on skin, sub cutis, linea alba, peritoneum and uterus, a dead female calf was retrieved. Uterus was irrigated with normal saline and 6 Furea boli were placed inside uterus. The uterine incision was closed with chromic catgut no. 2 in double inversion manner. Linea alba was closed with chromic catgut no. 2 in lockstitch pattern reinforced by simple interrupted sutures. Skin incision was closed with black braided silk no. 2 in horizontal mattress pattern. The surrounding area was cleaned with povidone iodine and tincture benzoin seal was applied and secured with retention sutures. Post operatively, 2 liters lactated ringers, 15 ml Tribivet, 15 ml Ketoprofen, Ceftriaxone + Tazobactam 3.375 g I/V and chlorphaneramine maleate 15 ml I/M were administered. This treatment was followed for the next 5 days along with daily dressing. The owner was advised to feed the animal with Raagi malt for a period of one month which improves haematology. Skin sutures were removed on 14<sup>th</sup> post operative day and the buffalo recovered uneventfully.

In buffaloes dystocia is comparatively infrequent due to capacious abdomen. Even then, various etiological factors were reported for constriction of birth canal that lead to dystocia which included feto - pelvic disproportion (Mee, 2008), vulvar/ vaginal stricture, tumours (Sharma *et al.*, 1977), incomplete cervical dilatation, uterine torsion, etc. (Purohit *et al.*, 2011). Fractures of tuber coxae could be seen often in buffaloes compared to iliopubic juncture which were rare and not to the extent causing severe dystocia. Sharma *et al.* (1992)

also reported such a case of dystocia due to narrow pelvis resultant of an accident. In the present case, dystocia was due to narrowed pelvis resultant of train accident. Due to this mishap, the shaft of ilium got fractured and its sharp edged fragments were inwardly projected into pelvic cavity and healed by mal – union which lead to obstruction of birth canal. Though the calf is in normal posture and presentation, narrow pelvis forced the head of calf to lateral side made eutokia impossible. This forced us to opt for caesarean, which was also recommended by Samantha (2011). Clinical signs like futile attempts to deliver calf, immobile foetus and inability to cross second stage of labour were also reported by Azizzadeh *et al.* (2012). Even though the animal recovered well, its reproductive future is questionable, as it requires surgical intervention in all deliveries. Hence, the owner was advised either to cull the animal or not to breed it further.

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**Fig 1:** Photograph showing straining buffalo with deformed pelvis on its left side. Note the limb of calf outside the inflamed and oedematous vulva.



**Fig 2:** Lumbosacral area of the same animal in dorsal view. Note clear inward depression on left side.

